	IFICATION OF SUBJECT MATTER Cl ⁷ H02J3/38, F02G5/04, H02P9	/04, G01R21/00	
According	to International Patent Classification (IPC) or to both na	ational classification and IPC	
	SEARCHED		
Minimum d Int.	locumentation searched (classification system followed Cl ⁷ H02J3/38, F02G5/04, H02P9,	by classification symbols) /04, G01R21/00	
Jits	tion searched other than minimum documentation to the uyo Shinan Koho 1922-1996 i Jitsuyo Shinan Koho 1971-2003	extent that such documents are included Toroku Jitsuyo Shinan Koho Jitsuyo Shinan Toroku Koho	1994-2003
Electronic d	lata base consulted during the international search (nam	e of data base and, where practicable, sea	rch terms used)
C. DOCUM	MENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
Y A	JP 2001-112176 A (Hitachi, I 20 April, 2001 (20.04.01), Full text; Fig. 1 Full text; Fig. 1 (Family: none)	td.),	1-6,13-18 7-12
Y	JP 2001-021594 A (Osaka Gas 26 January, 2001 (26.01.01), Full text; Figs. 1 to 9 (Family: none)	Co., Ltd.),	1-4,13-18
Y	JP 09-149653 A (Nippon Telec Corp.), 06 June, 1997 (06.06.97), Par. Nos. [0037] to [0050]; F (Family: none)		5,6
Further	documents are listed in the continuation of Box C.	See patent family annex.	
"A" docume considered "E" earlier date "L" docume cited to special "O" docume means docume than the	l categories of cited documents: ent defining the general state of the art which is not I to be of particular relevance document but published on or after the international filing ent which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other reason (as specified) ent referring to an oral disclosure, use, exhibition or other ent published prior to the international filing date but later e priority date claimed actual completion of the international search larch, 2003 (03.03.03)	"T" later document published after the interpriority date and not in conflict with the understand the principle or theory understand the considered novel or cannot be considered to involve an inventive step combined with one or more other such combination being obvious to a person document member of the same patent for the same p	e application but cited to criying the invention laimed invention cannot be red to involve an inventive claimed invention cannot be when the document is documents, such skilled in the art amily
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/01140

			PU3/U114U
C (Continu	DATE DE LEVAL	ŢT.	
Category*	Citation of document, with indication, where approp	Relevant to claim N	
Y	JP 64-008832 A (International Corp.), 12 January, 1989 (12.01.89), Full text; Figs. 2, 4 & US 4752697 A & EP 02 & CA 1292771 A		16-18
P	JP 2002-247769 A. (Yanmar Diese Omron Corp.), 30 August, 2002 (30.08.02), Full text; Figs. 1 to 5 (Family: none)	l Engine Co., Ltd.,	
P	(Family: none)		
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